DEPARTMENT OF THE ARMY TECHNICAL MANUAL

INSTALLATION OF INTERCOMMUNICATION SET AN/VIC–1(V) IN CARRIER, PERSONNEL, ARMORED, M113, M113A1

Headquarters, Department of the Army, Washington, D. C.
6 March 1967

		Paragraph	Page
CHAPTER 1.	INTRODUCTION		
	Scope	1–1	2
	Index of publications	1–2	2
	Forms and records	1–3	2
CHAPTER 2.	INSTALLATION		
Section I.	Service Upon Receipt of Equipment		
	Unpacking	2–1	3
	Checking unpacked equipment	2–2	3
II.	Equipment Installation		
	Tools required for installation	2–3	3
	Installation instructions	2–4	3
APPENDIX	REFERENCES		

CHAPTER 1
INTRODUCTION

1–1. Scope

This manual provides instructions for installing the installation unit (Federal stock No. 5830–892–1057) that permits basic unit, Federal stock No. 5830–856–3273 (Intercommunication set AN/VIC–I (v)) to be mounted in Carrier, Personnel, Armored, M113, M113A1.

1–2. Index of Publications

Refer to the latest issue of DA Pam 310–4 to determine whether there are new editions, changes, or additional publications pertaining to this equipment. DA Pam 310–4 is an index of current technical manuals, technical bulletins, supply manuals (types 7, 8, and 9), supply bulletins, lubrication orders, and modification work orders available through publications supply channels. The index lists the individual parts (–10, –20, –35P, etc.) and the latest changes to and revisions of each equipment publication.

1–3. Forms and Records

a. Reports of Maintenance and Unsatisfactory Equipment. Use equipment forms and records in accordance with instructions in TM 38–750.

b. Report of Damaged or Improper Shipment. Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment) as prescribed in AR 700–58 (Army), NAVASANDA Publication 378 (Navy), and AFR 71–4 (Air Force.)

c. Reporting of Equipment Manual Improvements. Reporting of errors, omissions, and recommendations for improving this manual by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to Commanding General, U. S. Army Electronics Command, ATTN: AMSEL–MR–NMP–AD, Fort Monmouth, N. J., 07703.

CHAPTER 2

INSTALLATION

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

2–1. Unpacking

Move the packing boxes close to the location where the installation is to be made, and unpack the parts of the installation unit. Be careful not to lose any of the parts.

2–2. Checking Unpacked Equipment

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD Form 6 (para 1–3).

b. Check to see that the equipment is complete as listed on the packing slip. If a packing slip is not available, the completeness of the installation unit can be determined by comparing the parts received with the items shown on the installation drawings (figs. 2–1 and 2–3). The contents of an installation unit are also listed in SB 11–131.

c. When vehicles with radio sets are to be turned in or transferred, the communication equipment will be removed and reinstalled in the new replacement vehicles. Additional items, which are required to complete the installation, should be requisitioned as individual items. To determine the Federal stock number of authorized items in the installation unit, refer to SB 11–131.

Section II. EQUIPMENT INSTALLATION

2–3. Tools Required for Installation

Tools required for the installation of the Intercommunications Set AN/VIC–1(V) installation unit are a part of Tool Kits, Radio and Radar Repairman TK–87/U and TK–88/U. The following additional tools are required:

a. One 3/8-inch electric drill.

b. One set of 1/16-inch to 3/8-inch drill bits.

2–4. Installation Instructions

a. Accomplish the installation of the Intercommunication Set AN/VIC–1(V) installation unit by following the instructions given on figures 2–1, 2–2, and 2–3.

b. The following additional information is provided:

(1) Drill the correct size holes for the sheet metal screws that hold the plastic cable clamps by selecting a drill bit that is slightly smaller in diameter than the sheet metal screw.

(2) When the installation is completed, check the tightness of all the bolts and the screws.

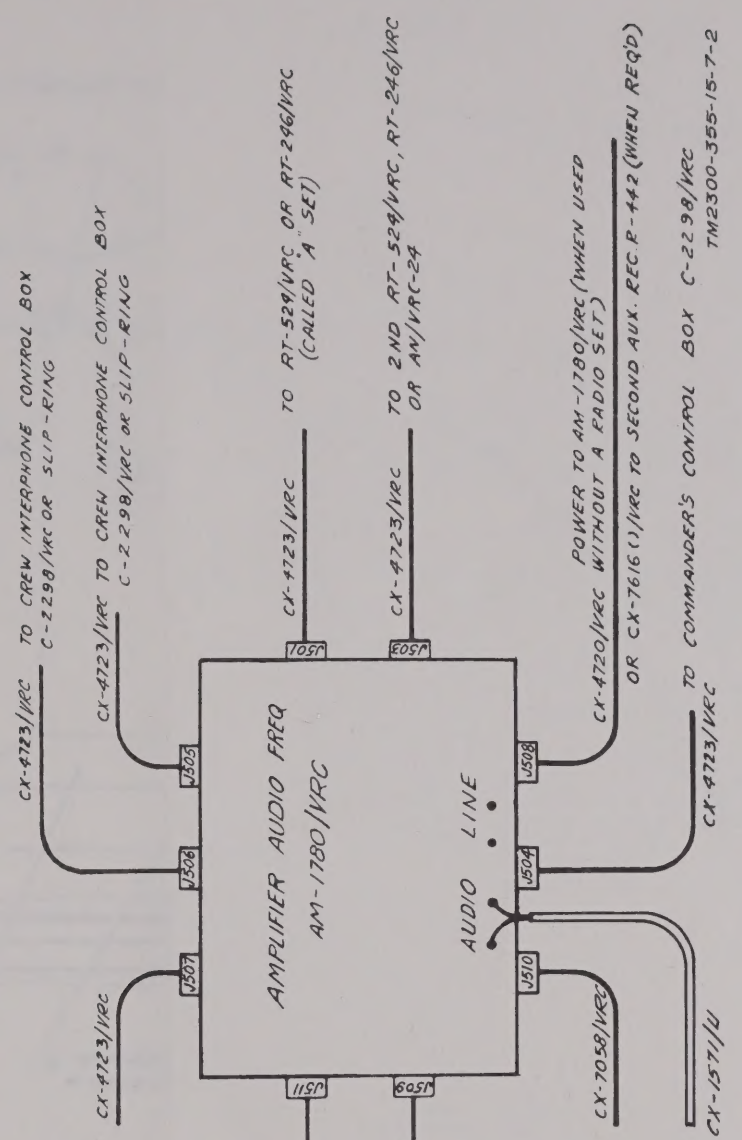
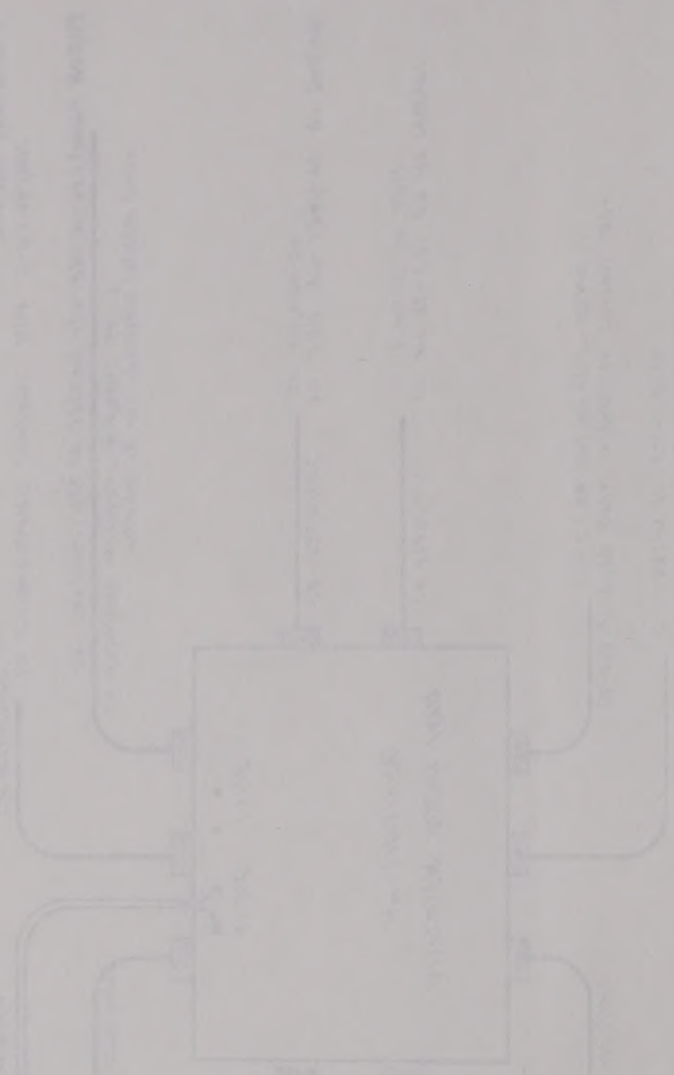
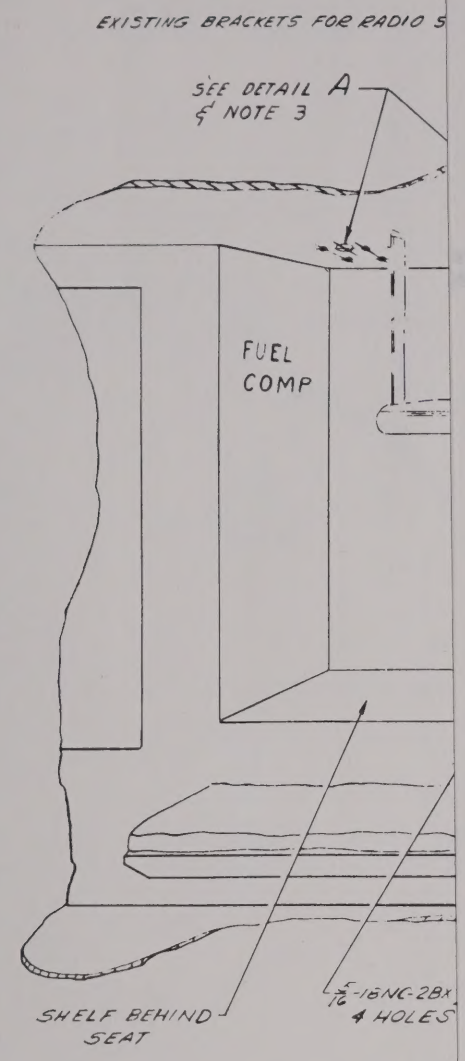
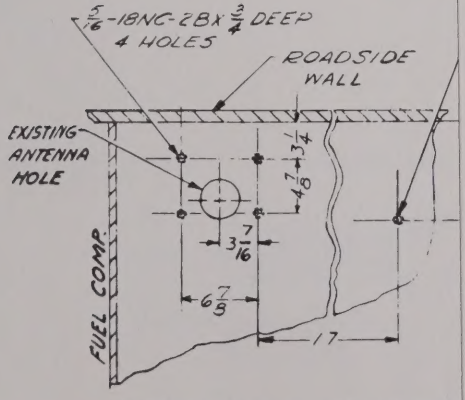

AMPLIFIER AUDIO FREQ
AM-1780/VRC
AUDIO LINE
J501
J502
J503
J504
J505
J506
J507
J508
J509
J510
J511
CX-4723/VRC TO CREW INTERPHONE CONTROL BOX C-2298/VRC OR SLIP-RING
CX-4723/VRC TO CREW INTERPHONE CONTROL BOX C-2298/VRC OR SLIP-RING
CX-4723/VRC TO RT-529/VRC OR RT-246/VRC (CALLED "A" SET)
CX-4723/VRC TO 2ND RT-529/VRC, RT-246/VRC OR AM/VRC-24
CX-4720/VRC POWER TO AM-1780/VRC (WHEN USED WITHOUT A RADIO SET) OR CX-7616()/VRC TO SECOND AUX. REC. R-442 (WHEN REQ'D)
CX-4723/VRC TO COMMANDER'S CONTROL BOX C-2298/VRC TM2300-355-15-7-2
CX-4723/VRC TO CREW INTERPHONE CONTROL BOX C-2298/VRC OR SLIP-RING
CX-4723/VRC TO LEFT RECEPTACLE (J701) ON RETRANSMISSION UNIT C-2299/VRC
CX-4723/VRC TO RIGHT RECEPTACLE (J702) ON RETRANSMISSION UNIT C-2299/VRC
CX-7058/VRC TO AUX. REC. R-442/VRC
CX-1571/U TO RADIO RECEIVING SET AN/GRR-5

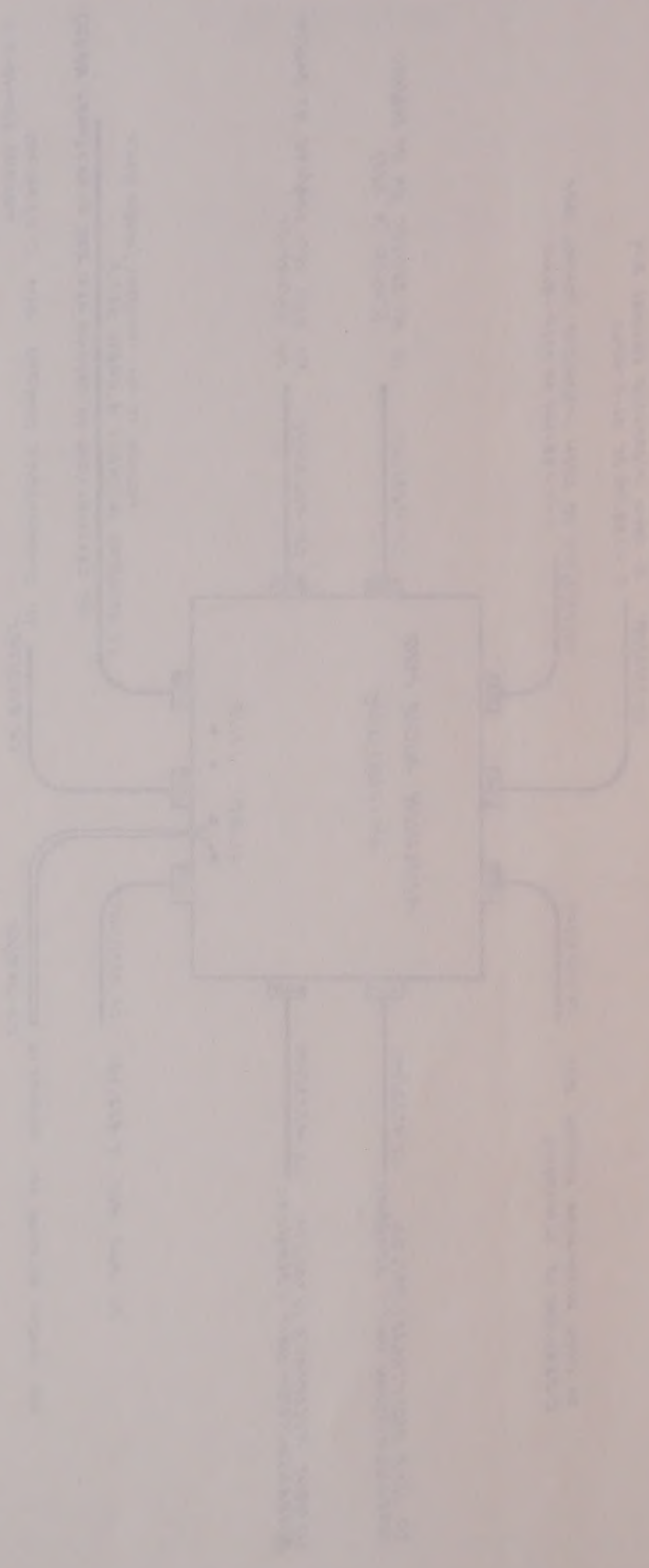
Figure 2–1. General cording diagram.

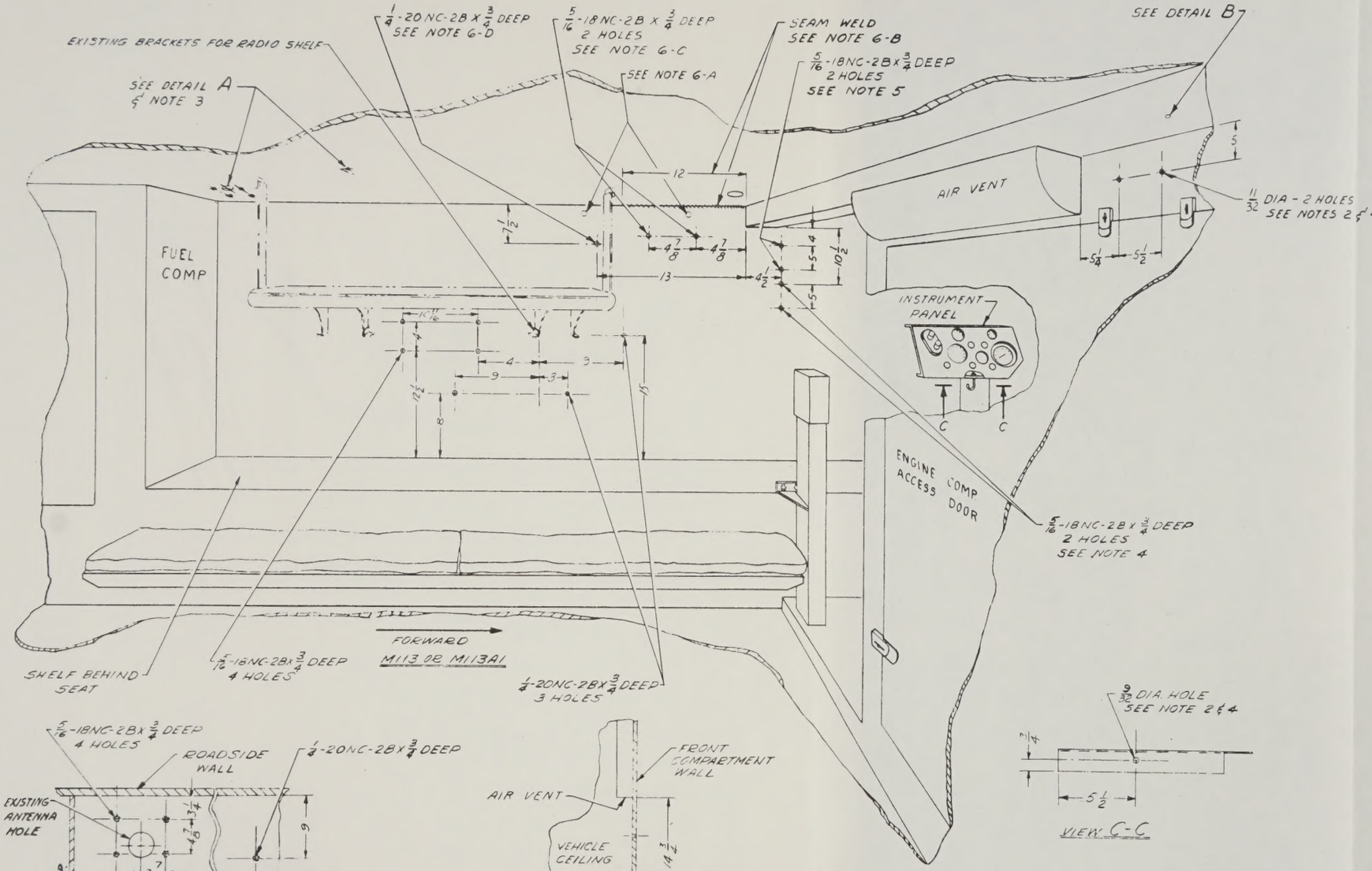






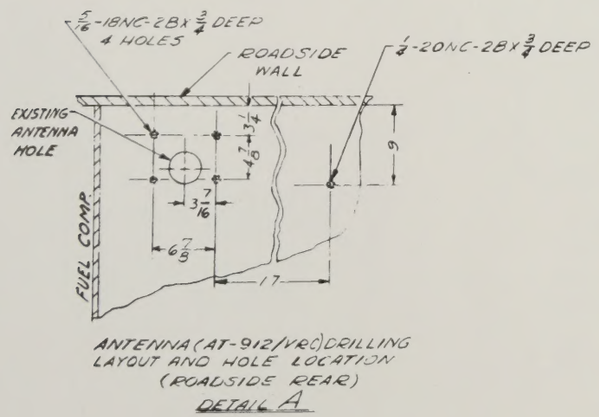
ANTENNA (AT-912/VRC) DRILL
LAYOUT AND HOLE LOCATIO
(ROADSIDE REAR)
DETAIL A



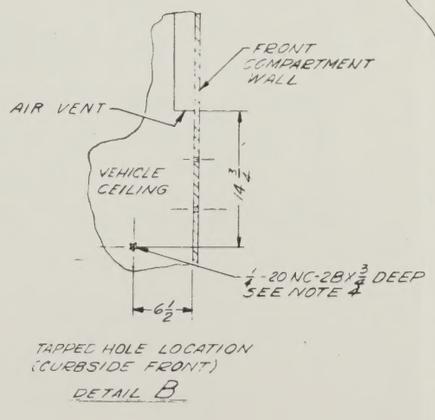

EXISTING BRACKETS FOR RADIO SHELF
SEE DETAIL A & NOTE 3
1/4-20 NC-2B X 3/4 DEEP SEE NOTE 6-D
5/16-18 NC-2B X 3/4 DEEP 2 HOLES SEE NOTE 6-C
SEE NOTE 6-A
SEAM WELD SEE NOTE 6-B
5/16-18 NC-2B X 3/4 DEEP 2 HOLES SEE NOTE 5
SEE DETAIL B
AIR VENT
11/32 DIA - 2 HOLES SEE NOTES 2 & 4
FUEL COMP
INSTRUMENT PANEL
ENGINE COMP ACCESS DOOR
5/16-18 NC-2B X 3/4 DEEP 2 HOLES SEE NOTE 4
FORWARD
M113 OR M113A1
SHELF BEHIND SEAT
5/16-18 NC-2B X 3/4 DEEP 4 HOLES
1/4-20 NC-2B X 3/4 DEEP 3 HOLES

NOTES:

1—ALL HARDWARE AND BRACKETS MOUNTED ON VEHICLE WALLS OR CEILING SHALL BE INSTALLED BY DRILLING AND TAPPING HOLES.
2—FOR INSTALLATION OF COMMANDERS CONTROL BOX, AND HOOK ON INSTRUMENT PANEL USE CLEARANCE HOLES.
3—USED WITH ALL INSTALLATIONS EXCEPT AN/VIC-1(V).
4—USED WITH AN/VIC-1(V) ONLY.
5—USED FOR RETRANSMISSION ONLY. (RADIO SETS AN/VRC-45 & AN/VRC-49 INCLUDE RETRANSMISSION FACILITIES AS PART OF BASIC UNIT)
6—WHEN ANTENNA AT-912/VRC IS MOUNTED IN ROADSIDE FRONT LOCATION:
A.—REMOVE TWO EXISTING SPACERS.
B.—FLUSH OFF IRREGULARITIES IN SEAM WELD IN THIS AREA. (IF NECESSARY.)
C—ASSEMBLE ANGLE BRACKET PER SC-C-48618 AND USE ASSEMBLY AS TEMPLATE.
D—TAPPED HOLE IS REQUIRED FOR REROUTING EXISTING VEHICLE POWER CORD.



ANTENNA (AT-912/VRC) DRILLING LAYOUT AND HOLE LOCATION (ROADSIDE REAR)
DETAIL A

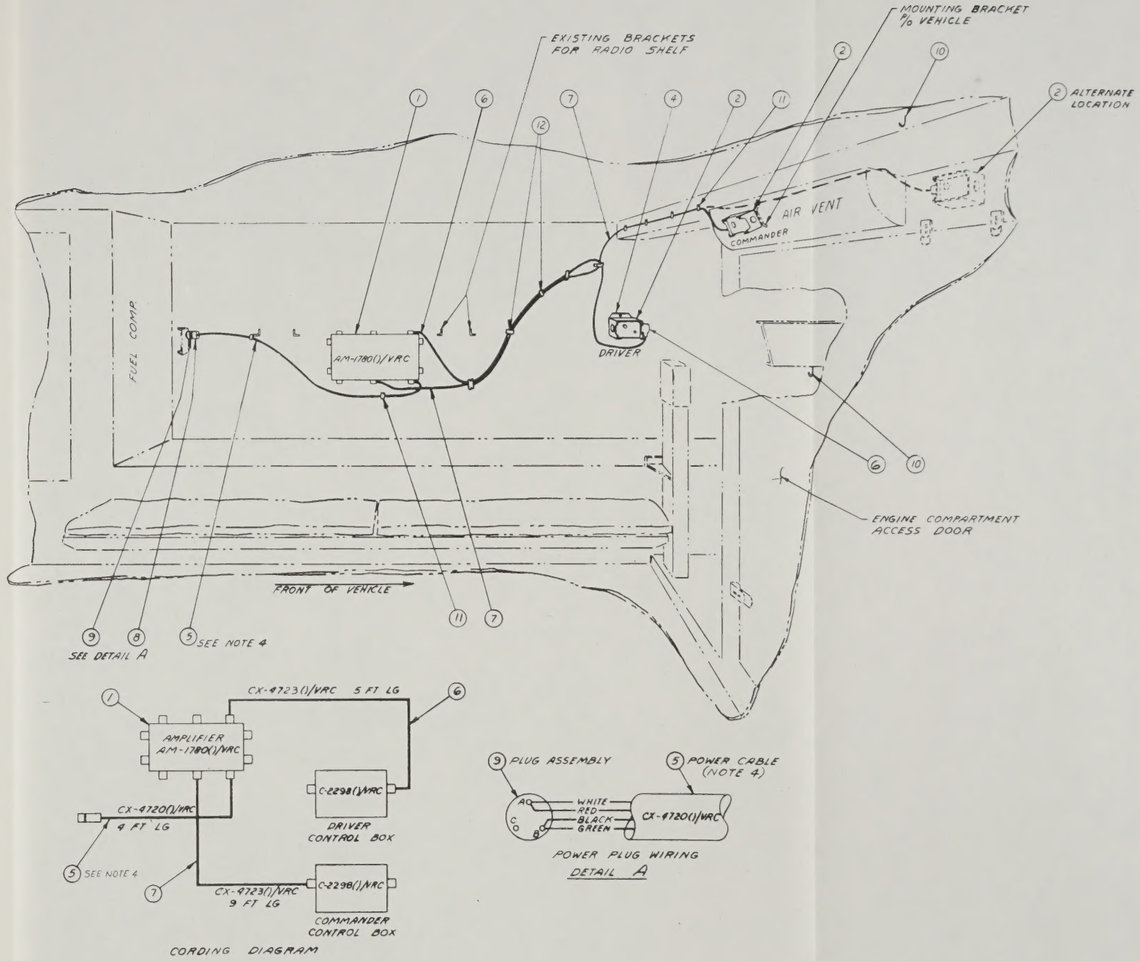


TAPPED HOLE LOCATION (CURBSIDE FRONT)
DETAIL B

VIEW C-C

Figure 2–2. Drilling details for Radio Set AN/VRC–12 (Series), AN/VRC–53 or AN/GRC–125 in Carrier, Personnel, Armored, M113, M113A1.

Item No.	Name of items	Qty reqd	Remarks
1	Amplifier, Audio frequency AM–1780/VRC	1	
2	Control, Intercommunication Set C–2298/VRC	2	
4	Cable Assembly, Power, Electrical CX–4720/VRC(4 ft lg) (note 4)	1	
5	Cable Assembly, Special Purpose, Electrical CX–4723/VRC (5 ft lg)	1	
6	Cable Assembly, Special Purpose Electrical CX–4723/VRC (9 ft lg)	1	
7	Accessory assembly	1	
8	Plug assembly	1	
9	Hook assembly	2	SC–B 48691
10	Cable support kit PPL#1469 (note 2)	2	
11	Multicable strapping kit (note 2)	1	



NOTES:

1 — UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
2 — CUT STRAP MATERIAL INTO REQUIRED LENGTHS FOR CABLE CLAMPING, LOCATE APPROXIMATELY AS SHOWN.
3 — DRILLING DETAILS ARE PER SC-D-48730.
4 — CAUTION: WHEN ANY (AN/VRC-12 SERIES) RADIO SET IS USED WITH THE INTERCOMMUNICATIONS SET AN/VIC-1(V), POWER CORD (5) MUST BE REMOVED FROM THE SYSTEM.

TM 2300-355-15-7-4

Figure 2–3. Installation of Intercommunication Set AN/VIC–1(V) in Carrier, Personnel Armored, M113.

APPENDIX
REFERENCES

AR 700–58	Report of Damaged or Improper Shipment
DA Pam 310–4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7, 8, and 9), Supply Bulletins, Lubrication Orders, and Modification Work Orders
SB 11–131	Vehicular Radio Sets and Authorized Installations
SB 38–100	Preservation, Packaging, and Packing Materials, Supplies, and Equipment Used by the Army
TB SIG 364	Field Instructions for Painting and Preserving Electronic Command Equipment
TM 11–5820–401–10	Operator's Manual: Radio Sets AN/VRC–12 and AN/VRC–43, –44, –45, –46, –47, –48, and –49
TM 11–5820–401–20	Organizational Maintenance Manual (Including Repair Parts and Special Tool Lists): Radio Sets AN/VRC–12 and AN/VRC–43, –44, –45, –46, –47, –48, and –49
TM 11–5820–401–35	DS, GS, and Depot Maintenance Manual (Including Repairs Parts and Special Tool Lists); Radio Sets AN/VRC–12 and AN/VRC–43, –44, –45, –46, –47, –48 –49
TM 11–5820–498–10	Operator's Manual: Radio Sets AN/VRC–53 and AN/GRC–125 and Amplifier-Power Supply Group OA–3633/GRC
TM 11–5820–498–20	Organizational Maintenance Manual: Radio Sets AN/VRC–53 and AN/GRC–125 and Amplifier-Power Supply Group OA–3633/GRC
TM 11–5820–498–35	DS, GS, and Depot Maintenance Manual: Radio Sets AN/VRC–53 and AN/GRC–125 and Amplifier-Power Supply Group OA–3633/GRC
TM 11–5830–340–12	Operator and Organizational Maintenance Manual: Intercommunication Set AN/VIC–1(V)
TM 38–750	Army Equipment Record Procedures

BY ORDER OF THE SECRETARY OF THE ARMY:

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Distribution:

To be distributed in accordance with DA Form 12–37 requirements for Direct and General Support Maintenance literature for Carriers, Personnel M113 and M113A1.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1987 - 181-421 - 421/60037

PIN : 016031–000